

# CONTRIBUTION OF SIMULATION-BASED MEDICAL EDUCATION TO WORK-READINESS OF JCU GRADUATES

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## Introduction

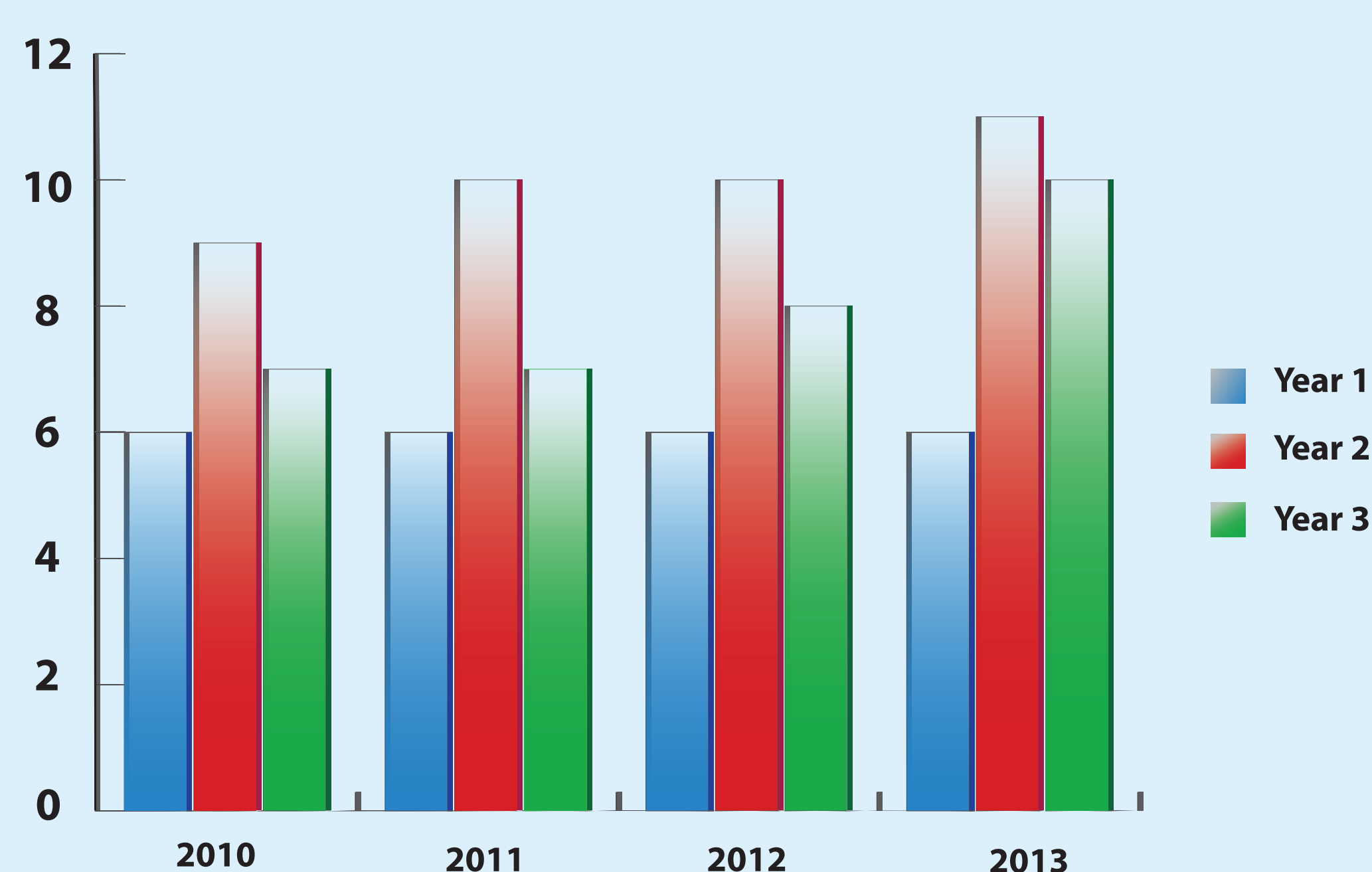
The College of Medicine and Dentistry (CMD) at James Cook University (JCU) was established in regional north Queensland in 1999 with the mandate to select and educate medical graduates to work in underserved areas, specifically rural, remote, and tropical locations. In 2006, the second graduating cohort at JCU were surveyed to determine if they felt 'work ready'. Results showed only 66% of students felt well or very well prepared for their first week of internship, and 13% of students felt inadequately prepared. The need for more CS activities within the curriculum was identified when the College underwent course accreditation in 2006.

## Approach

In response to the identified problem, the Clinical Skills Unit (CSU) team was formally established in 2007 to strengthen CS within the existing curriculum, with the explicit aim of producing more 'work ready' graduates. An integrated educational approach to address this identified problem resulted in implementation of the following interventions in the medical curriculum between 2007 and 2013:

- ✓ **Increase in the number of clinical skills workshops delivered in years 1-3** (Figure 1);
- ✓ **Introduction of activities supporting integration between theory and practice in the early years of the course**, aiming to create knowledge through transformation of experience<sup>1</sup>;
- ✓ **Introduction of elements supporting authenticity and professionalism to CS workshops** (such as Volunteer Simulated Patients<sup>2</sup>, mandatory attendance, reinforcement of the importance of documentation; and mandatory wearing of professional attire);
- ✓ **Introduction of Hurdles** (clinical assessment activities where the student must demonstrate proficiency in a particular clinical skill task or technique before progressing); and
- ✓ **Increased focus on promoting student confidence levels** by giving students the opportunity to: interact with simulated patients; repeatedly practice communication skills; and receive detailed feedback. This was done with the aim of promoting student perceptions of self-competency and proficiency.

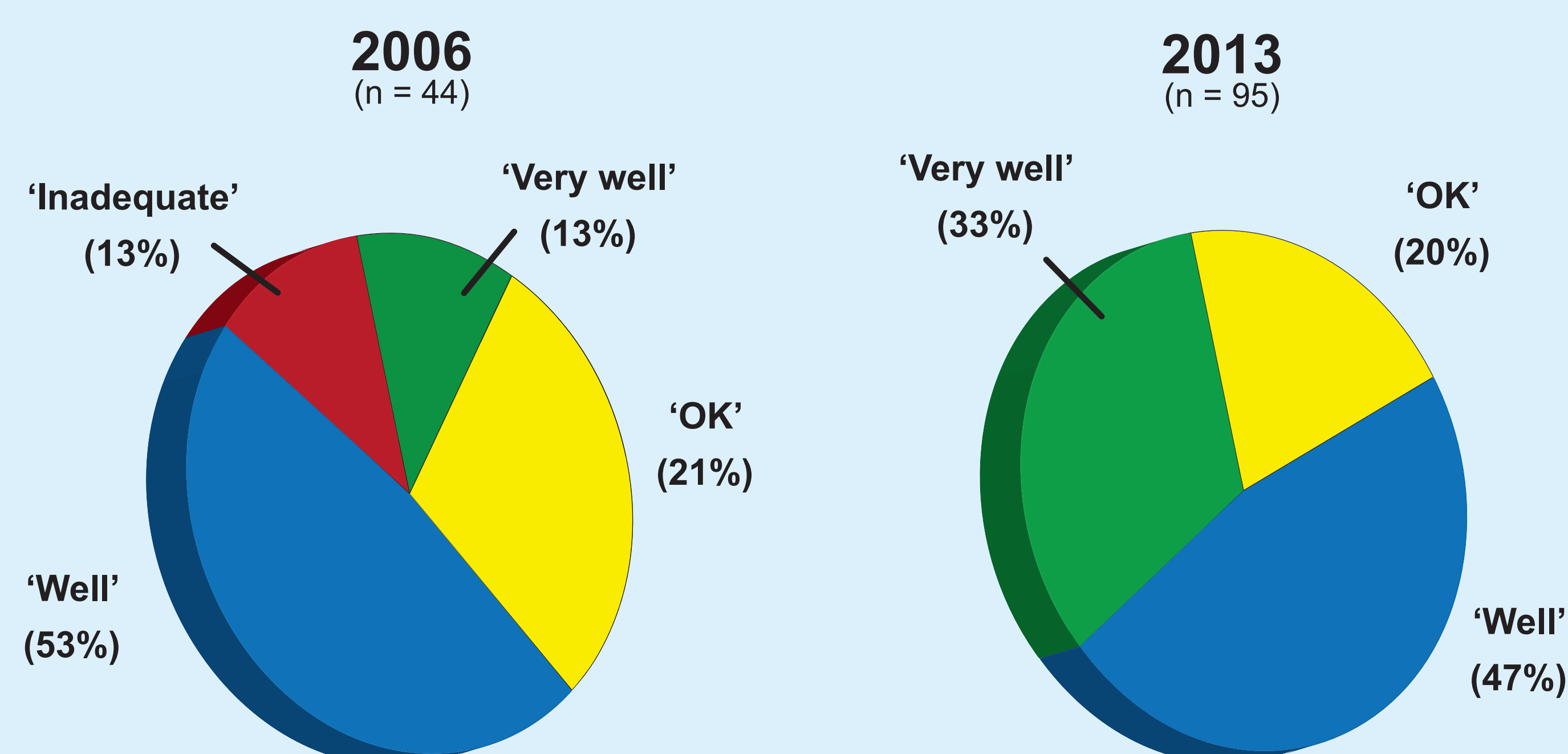
**FIGURE 1. Number of clinical skills workshops across Years 1-3 of the MBBS course from 2010 to 2013.**



## Results

The comprehensive, integrated approach to CS teaching established at JCU since 2007 lead to several positive outcomes. In particular, feedback from graduating students from the 2013 cohort provided evidence that the CSU had been successful with achieving more confident and work ready graduates, with 80% of students reporting they were either 'well' or 'very well' prepared in their work readiness. In 2013, no student reported feeling inadequately prepared in regards to their clinical skills for the first week of upcoming internship, in contrast to 13% of students feeling inadequately prepared in 2006 (Figure 2).

**FIGURE 2. MBBS Year 6 student feedback from 2006 and 2013 in regards to perceived work readiness in the first week of their internship rotation.**



## Discussion

The implemented changes in CS training at JCU over the last seven years have provided learning experiences that prepare students with all the essential skills for real-world practice in rural and remote Australia. A significant impact on student learning was achieved by providing an authentic and safe learning environment to practice technical and communication skills, resulting in a high proportion of 'work ready' graduates for rural, remote and tropical practice.

## References

- 1 Kolb, D. (1984). Experiential learning: Experience as the source of learning and development. Prentice-Hall Inc: Englewood Cliffs, N.J.
- 2 Chalabian, J., Dunnington, G. (1997) 'Standardized patients: a new method to assess the clinical skills of physicians'. Best Pract Benchmarking Healthc, 2, 174-7.